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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,702	06/19/2000	Jin-woo Lee	Q59587	4261

7590 03/10/2004

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EXAMINER

TRUONG, LECHI

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 03/10/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/597,702

Applicant(s)

LEE ET AL.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-25 are presented for examination. This action is in response to the amendment (RCE) filed 2/5/2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 8, 9, 11-12, 25 are rejected under 35 U.S.C. 103(a) as being Unpatentable over Admit Prior Art (APA) in view of Domenikos et al (US Patent 5,838,910) and further in view of FS (The Workflow Application Architecture).
3. As to claim 1, APA teaches the invention substantially as claimed including a slaver device (slave device, page2/ Fig. 1), a Predetermined coupling device (a coupling device, page 2), the host device (the host Device, page2), a storage device (a storage device, page2), the file system (a file system, page 2), an application (the application program), operates as a storage device of the host (the same manner of using a storage device within the host, page 2, In 1-8)
4. APA does not explicit teach driver media, a predetermined protocol. However, Domenikos teaches driver media, a predetermined protocol (the device drive 26/ the file

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hierarchy, col 14, ln 39-46/ disk partition, col 4, ln 4-45/ a file directory, col 4, ln 24-45, transport protocol layer, col 9, ln 48-60),

5. It would have been obvious to one of the ordinary skill in the art at time the invention was made to combine the teaching of APA and Donienikos because Donienikos's driver media would allows for deployment and execution of application programs across the Internet without downloading the application code into the storage memory of the user system.

6. APA and Donienikos do not teach a client as a master and server as slave. However, FS teaches a client as a master and server as slave (client (master)/server (slave), page 1, ln 19-24/ Page 2, ln 1-25).

7. It would have been obvious to one of the ordinary skill in the art at the time inventions was made to combine the teaching of APA, Donienikos and FS because FS's master and slave would provide the additional benefits of maintenance and distribute development.

8. **As to claim 8**, APA teaches a host device (a slaver device (slave device, Page2/ Fig. 1), a predetermined coupling device (a coupling device, page 2), the host device (the host device, page, 2), a storage device (a storage device, page2), the file system (a file system, page 2), an application (the application program). APA does not explicit teach a predetermined protocol, a top layer; the storage device of the slave device operates as a storage device of the host device. However, Domenikos teaches Domenikos teaches the device drive 26/ the file hierarchy (col 14,

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In 39-46)/ disk partition (col 4, ln 4-45)/ a file directory (col 4, ln 24-45), transport protocol layer (col 9, ln 48-60).

9. As to **claim 9**, APA does not teach identifying the top layer. However, Domenikos teaches identifying the top layer (identifies the remote file pointer , col 14, ln 39-50).

10. It would have been obvious to one of the ordinary skill in the art at the time invention was made to combine the teaching of APA and Donienikos because Donienikos's identifies the remote file pointer would identify the path name of the file hierarchy.

11. As to **claim 11**, it is an apparatus claims of claims 1, 8; therefore it is rejected the same reasons as claims 1, 8 above. Domenikos teaches the device driver 26/ the file hiechrarchy (col 14, ln 39-46)/ disk part ion (col 4, ln 4-45)/ a file directory (col 4, ln 24-45).

12. As to **claim 12**, it is an apparatus claims of claim 9; therefore, it is rejected the same reasons as claim 9 above.

13. As to **claim 25**, APA teaches the slave device is a portable data terminal, zip drive, MP3 player or digital camera (digital cameras, MP3 players, music video players and portabe data, page 1, ln 5-17), the host device is a personal computer (a computer device is referred as a host device, page 1, ln 5-17).

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14. Claims 2-3, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable

Over Admit Prior Art (APA) in view of Domenikos et al (US Patent 5,838,910) in view of FS (the Workflow Application Architecture) further in view of Jigour et al (US Patent. 5,815,426)

15. As to claim 2, APA, Domenikos and FS do not teach error correction unit for storage device. However, Jigour teaches error correction unit for storage device (error correction, col 18, ln 27-35).

16. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA and Domenikos, FS and Jigour because Jigour's error correction would control error for host or device system.

17. As to claim 3, APA teaches application program within host device can use the storage device of slave in the same manner of using a storage device within the host device (page2, ln 5-18), thus error correction unit in slave can perform connection to error correction unit or host device.

18. As of claim 13, it is an apparatus claim of claims 3 and 9; therefore, it is rejected for the same reasons as claims 3 and 9 above. In addition, Domenikos the file Hierarchy (col 14, ln 39-46)/ disk partition (col 4, ln 4-45)/ a file directory (col 4, ln 24-45).

17. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA and Domenikos because Donienikos's layer would keeps the data on directory or subdirectory of the file hierarchy as a layer of the file layer.

18. Claims **4-7, 10, 11, and 14-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Admit Prior Art (APA) in view of Domenikos et al (US Patent 5,838,910) in view of FS (the workflow application architecture) in view of Jigour et al (US Patent. 5,815,426) and further in view of Intel (Understanding the Flash Translation (FTL) Specification)

19. As to **claim 4**, APA, Domenikos, FS and Jigour do not teach a logical-to-physical converter. However, Intel teaches logical-to-physical converter (Logical to physical mapping ,section 7.0).

20. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA and Domenikos, FS, Jigour and Intel because Intel's logical to physical converter Donienikos's layer would translates between physical and logical addresses.

21. As to **claim 5**, APA teaches application program within host device can use the storage device of slave in the same manner of using a storage device within the host device (page2, In 5-18), thus, the logical-to-physical convert of the slave can perform connection to a logical-to-physical converter of the host device.

22. As to **claim 6**, APA teaches data (data, page 1, In 10-14), application (application, page 2, In 1-8).

23. APA does not explicit teach a file system driver, the logical location information. However, Domenikos et al teaches a file system driver, the logical location Information (a file system, logical structure, col 4, In 1-50).

24. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA and Domenikos because Domenikos's file system driver would make the data to access on the driver more easily.

25. As to **claim 7**, APA does not explicit teach a predetermined protocol layer. However, Domenikos teaches (a predetermined protocol layer, transport protocol layer, col 9, In 48-60).

26. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA and Domenikos because Domenikos's file system driver would support the connection that directs host-to-host communication between different hosts.

27. As to **claim 10**, it is an apparatus claim of claims 2, 4, 6; therefore, they are rejected as the same reasons claims as claims 2,4,6 above.

28. As to claim 14, it is an apparatus claim of claims 5, 9; therefore, they are rejected as the same reasons claims of claims 5, 9. In additional, Domenikos teaches layer for a logical-to physical conversion (file hierarchy (col 14, In 39-46)/ disk partition (col 4, In 4-45)/ file directory (col 4, In 24-45).

29. As to claim 15, it is an apparatus claim of claims 6, 7 and 9; therefore, they are rejected as the same reasons as claims 6, 7 and 9 above. Domenikos teaches the file system drive layer (the file hierachirchy (col 14, In 39-46)/ disk partition (col 4, In 4-45)/ a file directory (col 4, In 24-45).

30. As to claims 16, 17, 18, 19, 20, 21, they are apparatus claims of claims 14, 15; therefore, they are rejected for the same reasons as claims 14, 15 above.

31. As to claims 22, 23, 24, they are apparatus claims of claims 14, 15; therefore, they are rejected for the same reasons as claims 14, 15 above. In additional, Domenikos teaches a media layer including a control and error correction layer, a logical-physical conversion layer and a file system drive layer (the file hierarchy, col 14, In 39-46)/ disk partition, col 4, In 4-45/ a file directory, col 4, In 24-45).

32. *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (703) 305 5312. The

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examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

February 23, 2004


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